

UL TEST REPORT AND PROCEDURE

Standard:	UL 60950-1, 2nd Edition, 2014-10-14 (Information Technology Equipment - Safety - Part 1: General Requirements) CAN/CSA C22.2 No. 60950-1-07, 2nd Edition, 2014-10 (Information Technology Equipment - Safety - Part 1: General Requirements)
Certification Type:	Listing
CCN:	QQGQ, QQGQ7 (Power Supplies for Information Technology Equipment Including Electrical Business Equipment)
Product:	Switching Power Supply
Model:	DA10-050US-M, DA10-050MP-M
Rating:	Input: 100-240Vac 0.3A(max) 50/60Hz Output: 5Vdc 2.0A(max) 10W(max)
Applicant Name and Address:	ASTECH INTERNATIONAL LTD 16TH FL LU PLAZA 2 WING YIP ST, KWUN TONG KOWLOON HONG KONG

This is to certify that representative samples of the products covered by this Test Report have been investigated in accordance with the above referenced Standards. The products have been found to comply with the requirements covering the category and the products are judged to be eligible for Follow-Up Service under the indicated Test Procedure. The manufacturer is authorized to use the UL Mark on such products which comply with this Test Report and any other applicable requirements of UL LLC ('UL') in accordance with the Follow-Up Service Agreement. Only those products which properly bear the UL Mark are considered as being covered by UL's Follow-Up Service under the indicated Test Procedure.

The applicant is authorized to reproduce the referenced Test Report provided it is reproduced in its entirety.

Any information and documentation involving UL Mark services are provided on behalf of UL LLC (UL) or any authorized licensee of UL.

Prepared by: Connie Tse

Reviewed by: Brian Wong

Supporting Documentation

The following documents located at the beginning of this Procedure supplement the requirements of this Test Report:

- A. Authorization - The Authorization page may include additional Factory Identification Code markings.
- B. Generic Inspection Instructions -
 - i. Part AC details important information which may be applicable to products covered by this Procedure. Products described in this Test Report must comply with any applicable items listed unless otherwise stated in the body of this Test Report.
 - ii. Part AE details any requirements which may be applicable to all products covered by this Procedure. Products described in this Test Report must comply with any applicable items listed unless otherwise stated in the body of each Test Report.
 - iii. Part AF details the requirements for the UL Certification Mark which is not controlled by the technical standard used to investigate these products. Products are permitted to bear only the Certification Mark(s) corresponding to the countries for which it is certified, as indicated in each Test Report.

Product Description

These models are Class II AC/DC switch mode power supply, evaluated as Limited Power Source with thermoplastic enclosure. The top and bottom enclosure is ultrasonically welded. These models are not intended to be repaired.

Reinforced insulation is maintained between primary circuit and user accessible secondary SELV output

Model Differences

All these models are similar except for designation name and plug type.

DA10-050US-M with US plug

DA10-050MP-M with interchangeable US plug or detachable appliance inlet

Technical Considerations

- Equipment mobility : movable (for model with AC inlet only) direct plug-in (for models with mains plug)
- Connection to the mains : pluggable A
- Operating condition : continuous
- Access location : operator accessible
- Over voltage category (OVC) : OVC II
- Mains supply tolerance (%) or absolute mains supply values : +10%, -10%
- Tested for IT power systems : Yes
- IT testing, phase-phase voltage (V) : 230V (for Norway only)
- Class of equipment : Class II (double insulated)
- Considered current rating of protective device as part of the building installation (A) : 20A
- Pollution degree (PD) : PD 2
- IP protection class : IP42 for models with fixed plug IP40 for model DA10-050MP-M only
- Altitude of operation (m) : 3000
- Altitude of test laboratory (m) : less than 2000 meters
- Mass of equipment (kg) : less than 1kg

- The product was submitted and evaluated for use at the maximum ambient temperature (T_{ma}) permitted by the manufacturer's specification of: 40°C
- The means of connection to the mains supply is: Pluggable A
- The product is intended for use on the following power systems: TT, IT, TN
- The equipment disconnect device is considered to be: Plug (for models with fixed plug), Appliance inlet (for model DA10-050MP-M only)
- The product was investigated to the following additional standards: (1) The blade configuration had been evaluated and found compliant with Standard for Wiring Devices-Dimensional Specifications, ANSI/NEMA WD 6., (2) Direct Plug-in Equipment complies with UL1310 mechanical assembly requirements
- The following accessible locations (with circuit/schematic designation) are within a limited current circuit: +5V output
- The following circuit locations (with circuit/schematic designation) were investigated as a limited power source (LPS): +5V output
- The following are available from the Applicant upon request: Installation (Safety) Instructions / Manual
- The power supply in this equipment was: Investigated to IEC 60950-1. As part of the investigation of this product, the power supply and its test report were reviewed and found to comply with IEC 60950-1.
- The outdoor equipment/enclosure is: IP42 (for models with fixed plug) , IP40 (for model DA10-050MP-M only)
- Clearance was evaluated for operating altitude up to 3000m above sea level.
- Top enclosure was secured to bottom enclosure by ultrasonic weld.